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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/527,408  | 03/11/2005  | Wayne Conrad         | 12800-30/PMdC       | 4779             |
| 1059 7590 06/02/2009<br>BERESKIN AND PARR LLP/S.E.N.C.R.L., s.r.l.<br>40 KING STREET WEST<br>BOX 401<br>TORONTO, ON M5H 3Y2<br>CANADA |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| CECIL, TERRY K  |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 1797  |             |                      |                     |                  |
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| 06/02/2009  |             | PAPER                |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/527,408

**Applicant(s)**

CONRAD, WAYNE

**Examiner**

Mr. Terry K. Cecil

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-2 and 4-11 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/CDC)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

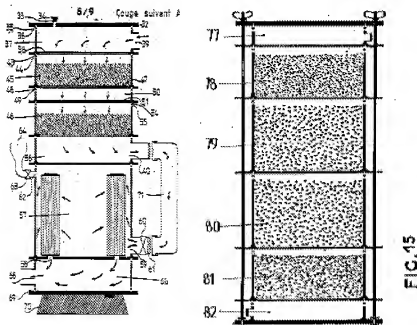
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

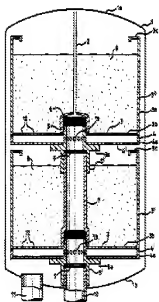
2. Claims 1-2 and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by FR

2656813 A1, hereinafter '813.



'813 teaches a water treatment apparatus including an inlet port 39, an outlet port 68, and a plurality of removable containers arranged for serial flow of water therethrough (notice the flow arrows in the drawings). Both containers include sand and inlet/outlet seals (36, 44, 49, 55, etc). The first container (top in the figure) includes a lid 32 and partitions 38, 47 as in claims 1-2 and 4-7.

3. Claims 1-2, 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by GB2,276,330, hereinafter "330". '330 teaches a water treatment apparatus including two containers (cups 3), an inlet 11 and an outlet 10. Each of the cups includes sand, an inlet



defined by rim 3c, and an outlet (5' and 5'') including an outlet seal 9. The cups are removable (page 5, lines 1-9) [as in claims 1-2 and 4-5]. Water entering inlet 11 flows to the top of the drum into inlet 3c of the top cup and flows through the sand and the container 3 to an upper set of apertures 13. This treated water then flows through tube 7 which extends through the lower cup **necessitating that the water also flow through the lower cup** [as in claim 6].

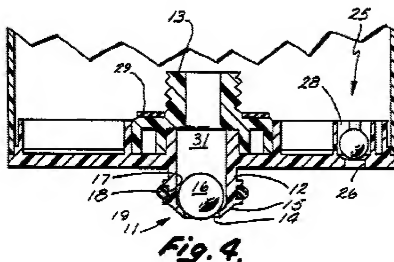
#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

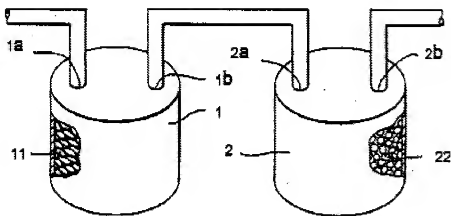
1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over '330 in view of Kool (U.S. 5,344,558). '330 teaches removable containers but not each including a water inlet and outlet port sealing members automatically sealing the ports when the container is removed from the apparatus. However such is taught by Kool. Kool teaches serial treatment of water including a removable container including inlet and outlet ports having sealing elements (16, 27) that seal the ports when the container is removed [as in claims 1-2, 4 and 7-8].



It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the serial containers of '330 to be configured as in Kool to be removable

and include the sealing inlet and outlet ports thereof, since Kool teaches the benefit of preventing water leakage during filter replacement (col. 1, lines 15-19).

6. Claims 1-2, 4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holland (U.S. 5,662,801) in view of Gershon et al. (U.S. 5,427,683) and Kool (U.S. 5,344,558).

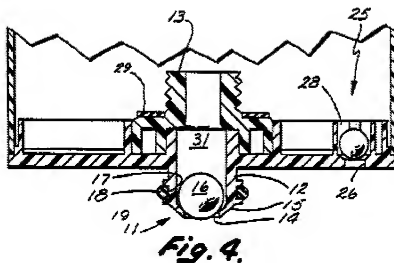


Holland teaches a serial flow arrangement for filtering water that includes an water (left side of figure), an outlet (right side of figure), a plurality of containers including a respective inlet and outlet port (1a, 1b, 2a, 2b) and wherein at least the first container contains sand (col. 4, line 25). Holland teaches his second container includes a stratified arrangement of activated carbon absorbent but isn't explicit that the second container includes sand. However, Gershon et al. teaches sand as well as activated carbon as water treating absorbents (col. 1. line 67 to col. 2, line 2) [as in claim 1]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the sand of Gershon in the second container of Holland, since Gershon teaches sand to also be an absorbent for treating water and simple substitution is within ordinary skill; or having sand along with the carbon in the stratified

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filtering material in the second container would be within ordinary skill since such would provide the benefit of absorbing a wider variety of contaminants.

Holland in view of Gershon doesn't teach the filtering elements to be individually removable and including the inlet and outlet ports to have sealing elements. However such is taught by Kool. Kool teaches serial treatment of water including a removable container including inlet and outlet ports having sealing elements (16, 27) that seal the ports when the container is removed [as in claims 1-2, 4 and 7-8].



It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the serial containers of the modified Holland to be configured as in Kool to be removable and include the sealing inlet and outlet ports thereof, since Kool teaches the benefit of preventing water leakage during filter replacement (col. 1, lines 15-19).

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over either of the rejections in sections 2, 3 or 6 above, and in further view of Simpson et al. (U.S. 5,264,129).

Simpson teaches a layer 14 including bacteria (biomaterial) for producing schmutzdecke. It is considered that it would have been obvious to have the biomaterial 14 of Simpson in any of the above, since Simpson teaches the benefit of decreasing the time for the formation of a bacterial treating layer.

8. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of the rejections in sections 2, 3 or 6 above, and in further view of Tucker (U.S. 6,314,676). Tucker teaches a prefilter 21 that contains an inoculation of biomaterial (bacteria). It is considered that it would have been obvious to have the filter 21 of Tucker in at least the top container in any of the rejections in sections 2 or 4, since Tucker teaches the benefit of inoculating other filters to provide treatment. Upon placement of the prefilters within the container, such would be considered a cassette. It would have been obvious to the skilled man for the cassette to be openable in order to refill as necessary.

#### ***Response to Arguments***

9. Applicant's arguments filed 4-27-2009 have been fully considered but they are not persuasive.

- Concerning '330, applicant argues there is no serial flow through the containers. This is not found to be persuasive since filtrate from the upper container flows through the central pipe of the second container. Note that Applicant has NOT claimed serial flow through the filtration media of the containers.



- Concerning the combination of Holland, Gershon and Kool, it is contended that despite the reasons Holland teaches for including sand in the first container, Gershon teaches sand for the purpose of absorption. Since Holland teaches his second container to include absorbent, having the absorbent sand of Gershon in the second container of Holland would have been within ordinary skill and for the reasons presented in the action. Since serial arrangement of containers was found in the primary reference, Gershon was not relied upon this limitation. The Examiner contends that upon combination of the references, all the limitations of e.g. claim are taught.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Terry K. Cecil whose telephone number is (571) 272-1138. The examiner can normally be reached on 8:00a-4:30p M-F..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mr. Terry K. Cecil/  
Primary Examiner, Art Unit 1797

tkc